Inter-layer mass transport in a low-coverage, low island-density regime
K.R. Roos, R. Bhutani and M.C. Tringides 62

The autocatalytic decomposition of water on Zr(0001)
B. Li, K. Griffiths, C.-S. Zhang and P.R. Norton 70

Oxidation of AlAs films under ultrahigh vacuum conditions: interaction of H_2O and O_2 with the AlAs(001) surface
W.J. Mitchell, C.-H. Chung, S.I. Yi, E.L. Hu and W.H. Weinberg 81

Atomic and electronic structure of diamond(111) surfaces: III. Electronic structure of the clean and hydrogen-covered three-dangling-bond surfaces
G. Kern, J. Hafner and G. Kresse 94

Interaction of rhodium with hydroxylated alumina model substrates
J. Libuda, M. Frank, A. Sandell, S. Andersson, P.A. Brühwiler, M. Bäumer, N. Mårtensson and H.-J. Freund 106

EXAFS study of the crystallographic structure of cobalt thin films on Pt(111)
J. Thiele, R. Belkhou, H. Bulou, O. Heckmann, H. Magnan, P. Le Fèvre, D. Chandesris and C. Guillot 120

Substrate-induced pairing of Si ad-dimers on the Si(100) surface
O.M. Braun, T.P. Valkering, J.H.J. van Opheusden and H.J.W. Zandvliet 129

An in-situ AFM investigation of canavalin crystallization kinetics
T.A. Land, J.J. De Yoreo and J.D. Lee 136

The influence of surface oxidation on the reactions of methanol on Fe(110)
T.S. Rufael, J.D. Batteas and C.M. Friend 156

Step fluctuations on metals in contact with an electrolyte: a new access to dynamical processes at the solid/liquid interface
M. Giesen, M. Dietterle, D. Stapel, H. Ibach and D.M. Kolb 168

The influence of electronegative coadsorbates on the geometry of benzene on Ru(001)
M. Stichler, R. Weimar and D. Menzel 179

An ab initio Hartree–Fock study of the electron-excess gap states in oxygen-deficient rutile TiO_2
W.C. Mackrodt, E.-A. Simson and N.M. Harrison 192

Reactivity of gypsum faces according to the relative humidity by scanning force microscopy
E. Finot, E. Lesniewska, J.-C. Mutin and J.-P. Goudonnet 201

Critical exponents for two-dimensional condensation of organic adsorbates at the mercury–aqueous solution interface
K. Pushpalatha and M.V. Sangaranarayanan 218

A quantum chemical investigation and reassignment of the HREELS observed O vibrations on the Al(111) surface
J.D. Head 224

Surface modification by the potential delay technique to obtain a photoactive PbO film
I. Mukhopadhyay, S. Ghosh and M. Sharon 234

Electronic properties of the Ag/Ge(111) interface
H.H. Weitering and J.M. Carpinelli 240

Determination of the interface structural morphology from grazing-incidence X-ray diffraction data using dynamical theory
T.-S. Gau, H.-C. Chien, S.-L. Chang, M.-Y. Li and M.-K. Wu 254

Cs promoted oxidation of Zn and Cu–Zn surfaces: a combined experimental and theoretical study
S. Chaturvedi, J.A. Rodriguez and J. Hrbek 260

A comparative study of the thermal stability of the (103) surface of group-III-metal/group-IV-semiconductor systems
H. Ji, X. Li, R.G. Zhao, Z. Gai and W.S. Yang 276

The adsorption of CO on Fe-covered W(110)
T.-U. Nahm and R. Gomer 283

Depth profiling of ^{35}Cl implanted into Si using SPIX
H. Xia, W.N. Lennard, L. Rodríguez-Fernández and G.R. Massoumi 291

Thermal desorption measurement of ultrathin epitaxial organic films by optical spectroscopy
T. Shimada, H. Taira and A. Koma 302

A tight-binding molecular-dynamics study of the Si(001)/H(1 × 1) surface
K. Tagami and M. Tsukada 308

Mechanism of the partial oxidation of ethylene on an Ag surface: dipped adcluster model study
H. Nakatsuji, H. Nakai, K. Ikeda and Y. Yamamoto 315

Author index 335

Subject index 339

Materials index 345